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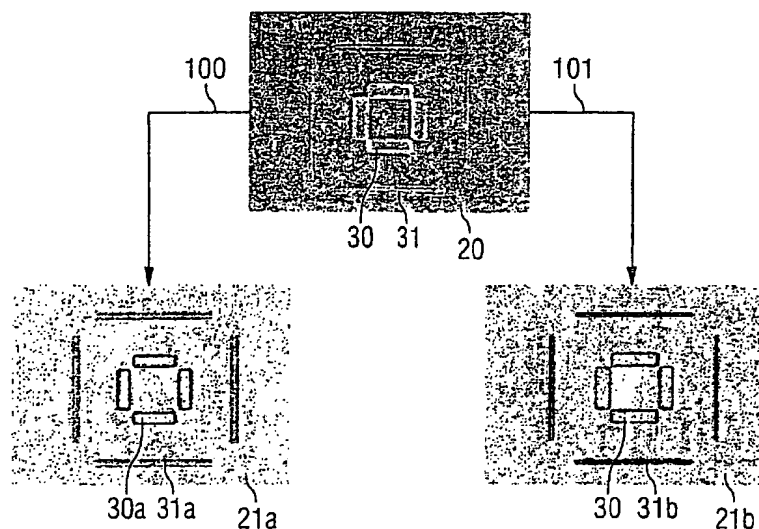
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- (71) Applicant (for all designated States except US): **INFINEON TECHNOLOGIES AG [DE/DE]; St.-Martin-Str. 53, 81669 Munich (DE).**
- (72) Inventors; and
(75) Inventors/Applicants (for US only): **HEINE, Rolf [DE/DE]; Alexander-Herzen-Str. 32, 01109 Dresden (DE). SCHMIDT, Sebastian [DE/DE]; Moritzburgerstr. 28, 01127 Dresden (DE). SCHEDEL, Thorsten [DE/DE]; Wilder-Mann-Str. 43, 01129 Dresden (DE).**
- (74) Agent: **EPPING, HERMANN & FISCHER; Ridlerstrasse 55, 80339 Munich (DE).**
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(54) Title: **METHOD FOR PERFORMING AN ALIGNMENT MEASUREMENT OF TWO PATTERNS IN DIFFERENT LAYERS ON A SEMICONDUCTOR WAFER**



(57) Abstract: In an alignment or overlay measurement of patterns on a semiconductor wafer (1) an error occurring during performing a measurement in one of a predefined number of alignment structures (20) in an exposure field (2) of a corresponding predefined set of exposure fields (10) can be handled by selecting an alignment structure (21b) in a substitute exposure field (11). This exposure field (11) can be an alignment structure (21a) in the same exposure field (10, 11), i.e. an intra-field change (100), or an other field not being part of the predefined set of exposure fields (10), i.e. an inter-field change (101). due to the might not erode and do not cause an error in a measurement, thus providing an increased alignment or overlay quality.

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